

Ship 9 FEB.

Work Order ID 155311

155311

Page 1

Thursday, January 12, 2017 11:16:42 AM

Item ID: 647.1305 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible
 Start Date: 1/12/2017 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 1/23/2017 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan:  Date: JAN 12 2017 Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
647.1300	D	JAN 13 2017							
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile & type labels per PPP 647.1305								
110	Pick Kit	0.00							
110									
Packaging	Memo	0.00							
Packaging									
120	QC4- 100% Inspect kits for completeness	0.00							
120									
QC	Memo	0.01							
Quality Control									

DAS
6
9-89

DAS
27
9-89

FEB 06 2017

DAS
6
9-89

JAN 30 2017

DAS
28
9-89

DAS
27
9-89

FEB 06 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

Work Order ID 155311

Thursday, January 12, 2017 11:16:42 AM

155311

Page 2

Item ID: 647.1305 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible
Start Date: 1/12/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 1/23/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Packaging	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP 647.1305 Location: <u>Sold</u> EXPIRY DATE OF: RTV Loctite 598: <u>04-18</u> MAGNOBOND 6398 PART 1: <u>11/07/2017</u> MAGNOBOND 6398 PART 2: <u>11/07/2017</u> SEALANT PR-1425: <u>06-30-2017</u> ***INDICATE ON BOX EXPIRY DATE OF RTV, MAGNOBOND PART1, MAGNOBOND PART2 AND SEALANT PR-1425 ***								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.02							
Quality Control	*** Enter exp. date in lot maintenance for RTV loctite 598, MAGNOBOND PART1, MAGNOBOND PART2 AND SEALANT PR-1425***								

DAS
27
9-89

FEB 06 2017

DAS
21
9-89

FEB 06 2017

JMF
17-2-6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :					
Misidentified ☐	Past Due ☐						

Picklist Print

Thursday, January 12, 2017 11:16:48 AM

Page 1

Work Order ID: 155311

155311

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 1/12/2017

Required Date: 1/23/2017

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 13.07.16 JLM VERIFIED BY:DD IPP
REV:B 14.07.31 AS PER ECN C2 DD VERF:JLM IPP REV:C
15.07.09 AS PER REV D DD VERIFIED BY:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

600.0990

Purchased

No

Each

18.0000

1

600 0990

Magnabond 6398 Part A Size 112 ml

**

136586

DAS
28
9-89

Location

Loc Qty

Loc Code

PKG

18

M135600

5

~~M136142~~

12

M134249

1

1/1/2017

600.0991

Purchased

No

Each

17.0000

1

600 0991

Magnabond 6398 Part B Size 112 ml

**

136586

DAS
28
9-89

Location

Loc Qty

Loc Code

PKG

17

m135600

5

~~m136142~~

12

600.1012

Purchased

No

Each

12.0000

1

600 1012

Sealant PR1425B2 (#654 sem)

**

136586

DAS
6
9-89

Location

Loc Qty

Loc Code

cck017

12

m136192

4

m136554

8

DAS
28
JAN 30 2017

DAS
27
30

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By
					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Thursday, January 12, 2017 11:16:48 AM

Page 2

Work Order ID: 155311

155311

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 1/12/2017

Required Date: 1/23/2017

Start Qty: 1.00

Required Qty: 1.00

601.2045 Purchased No

Each 18.0000

601 2045

RTV (LOCTITE 598) McMaster p/n: 6641A41

**

JAN 30 2017

DAS 6 28
9-89 9-89

601.2375 Manufactured No

Each 39.0000

601 2375

Washer

**

JAN 30 2017

DAS 6 28
9-89 9-89

601.2999 Manufactured No

Each 40.0000

601 2999

Screw

**

JAN 30 2017

DAS 6 28
9-89 9-89

647.0112 Manufactured No

Each 11.0000

647 0112

Strut Bracket

**

JAN 30 2017

DAS 6 28
9-89 9-89

647.1402 Manufactured No

Each 0.0000

647 1402

Lower Cutter Assembly

**

JAN 30 2017

DAS 6 28
9-89 9-89

Thursday, January 12, 2017 11:16:48 AM

Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step # : _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By		
							Lead hand / Supervisor Approval Verification		
							QC / QA Coordinator Approval		

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

Picklist Print

Thursday, January 12, 2017 11:16:48 AM

Work Order ID: 155311

155311

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 1/12/2017

Required Date: 1/23/2017

Start Qty: 1.00

Required Qty: 1.00

647.1403 Manufactured No

Each 1.0000

647 1403

Upper Cutter Assembly, U-Channel

**

DAS
6
9-89

DAS
28
9-89
JAN 30 2017

Location

Loc Qty

Loc Code

CCK048

1

128326

1

Each

2.0000

647.1601

Manufactured No

647 1601

Wiper Deflector Aft

**

DAS
6
9-89

DAS
28
9-89
JAN 30 2017

Location

Loc Qty

Loc Code

CCK091

2

153312

2

Each

10.0000

647.1610

Manufactured No

647 1610

Wiper Deflector Fwd

**

DAS
6
9-89

DAS
28
9-89
JAN 30 2017

Location

Loc Qty

Loc Code

CCK091

10

125082

7

M130388

3

Each

0.0000

647.1702

Manufactured No

647 1702

Skid Deflector Assembly

**

DAS
6
9-89

DAS
28
9-89
JAN 30 2017

647.2010

Manufactured No

647 2010

Upper Strut

**

DAS
6
9-89

DAS
28
9-89
JAN 30 2017

Location

Loc Qty

Loc Code

CCK094

53

106783

27

91895

26

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
		OTHER : _____							

Picklist Print

Thursday, January 12, 2017 11:16:48 AM

Page 4

Work Order ID: 155311

155311

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 1/12/2017

Required Date: 1/23/2017

Start Qty: 1.00

Required Qty: 1.00

647.2011 Manufactured No

Each 12.0000

647 2011
Lower Strut

**

DAS
6
9-89

JAN 30 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

Cck021

12

123511

4

125082

8

647.2113 Manufactured No

Each 8.0000

647 2113
Lower Rail, U-Channel

**

DAS
6
9-89

JAN 30 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

CCK083

8

144770

3

149972

5

91292A080 Purchased No

Each 19.0000

91292A080
Screw

**

DAS
6
9-89

JAN 30 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

ST588

19

M127948

19

93475A270 Purchased No

Each 36.0000

93475A270
Washer

**

DAS
6
9-89

JAN 30 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

ST588

36

M127948

36

Thursday, January 12, 2017 11:16:48 AM

Shop Packet Print

Page 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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								QC / QA Coordinator Approval																																																									
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Misidentified ☐	Past Due ☐																																																																

Picklist Print

Thursday, January 12, 2017 11:16:48 AM

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Work Order ID: 155311

155311

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 1/12/2017

Required Date: 1/23/2017

Start Qty: 1.00

Required Qty: 1.00

93625A300

Purchased No

Each

18.0000

93625A300

Locknut

**

4

DAS
6
9-89

JAN 30 2017
DAS
28
9-89

Location

Loc Qty

Loc Code

ST588

18

M127948

18

Each

598.0000

**

4

DAS
6
9-89

JAN 30 2017
DAS
28
9-89

AN3-11A

Purchased No

AN3-11A

Bolt

Location

Loc Qty

Loc Code

over003

456

153855

356

m136192

100

ST349

142

153855

142

Each

15.0000

**

5

DAS
6
9-89

JAN 30 2017
DAS
28
9-89

AN3-15A

Purchased No

AN3-15A

Bolt

Location

Loc Qty

Loc Code

FG

10

114941

10

ST348

5

M132551

5

Each

12.0000

**

5

DAS
6
9-89

JAN 30 2017
DAS
28
9-89

AN3C10A

Purchased No

AN3C10A

Bolt

Location

Loc Qty

Loc Code

OVER002

10

m136192

10

ST349

2

m135056

2

2

Thursday, January 12, 2017 11:16:48 AM

Shop Packet Print

Page 5

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Thursday, January 12, 2017 11:16:48 AM

Page 6

Work Order ID: 155311

155311

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 1/12/2017

Required Date: 1/23/2017

Start Qty: 1.00

Required Qty: 1.00

AN525-10R12

Purchased

No

Each

125.0000

AN525-10R12

Screw

**

DAS
6
9-89

JAN 30 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

ST329

125

102587

125

Each

8.0000

LN9025-0820K

Purchased

No

LN9025-0820K

Lock Tab Washer

**

DAS
6
9-89

JAN 30 2017

DAS
28
9-89

Location

Loc Qty

Loc Code

ST564

8

M136261

8

Each

0.0000

LN9037-08018

Purchased

No

LN9037-08018

Screw

**

DAS
6
9-89

JAN 30 2017

DAS
28
9-89

MS21042-08

MS21042L08

Purchased

No

Each

0.0000

MS21042-08

USE MS21042L08

**

DAS
6
9-89

JAN 30 2017

DAS
28
9-89

MS21042-3

MS21042L3

Purchased

No

Each

0.0000

MS21042-3

Nut

**

DAS
6
9-89

JAN 30 2017

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mis-labeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Thursday, January 12, 2017 11:16:48 AM

Work Order ID: 155311

155311

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 1/12/2017

Required Date: 1/23/2017

Start Qty: 1.00

Required Qty: 1.00

MS21042L4

Purchased

No

Each

2,305.000

MS21042L 4

Nut

DAS
27
9-89

Location

Loc Qty

Loc Code

FP001

18

m133363

18

GA

192

m135058

192

OVER007

1000

m136182

500

m136450

500

ST303

1095

m135864

24

m135979

71

m136295

1000

DA
6
9-JAN 31 2017

DAS
28
9-89

MS27039-1-14

Purchased

No

Each

660.0000

MS27039-1-14

Screw

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

94

120449

94

over006

500

124326

500

ST280

66

124326

66

DAS
6
9-89 JAN 30 2017

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Picklist Print

Thursday, January 12, 2017 11:16:48 AM

Work Order ID: 155311

155311

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 1/12/2017

Required Date: 1/23/2017

Start Qty: 1.00

Required Qty: 1.00

NAS1149F0332P

Purchased

No

Each

2,664.000

42

NAS1149F0332P

Washer

DAS
6
9-89

DAS
28
9-89

JAN 30 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

343

m133709

343

ST260a

1800

m136442

1800

ST262

521

m135948

521

42

NAS1149F0432P

Purchased

No

Each

1,639.000

8

NAS1149F0432P

WASHER

DAS
6
9-89

DAS
28
9-89

JAN 30 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

ST260a

1000

M136442

1000

ST262

639

M135704

639

8

NAS1149FN832P

Purchased

No

Each

1,543.000

8

NAS1149FN832P

Washer

DAS
6
9-89

DAS
28
9-89

JAN 30 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

232

M135058

232

ST263

1311

M136182

1311

8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Page 9

Thursday, January 12, 2017 11:16:48 AM

Work Order ID: 155311

155311

Parent Item: 647.1305

647 1305

Parent Item Name: EC145 Cable Cutter System Removable Provisions U Channel Compatible

Start Date: 1/12/2017

Required Date: 1/23/2017

Start Qty: 1.00

Required Qty: 1.00

NAS6604-66

Purchased

No

Each

78.0000

NAS6604-66

Bolt

DAS 6 9-89
JAN 30 2017
DAS 28 9-89

DAS 27 9-89

Location

Loc Qty

Loc Code

ST553

78

124328

36

M130388

42

4

Thursday, January 12, 2017 11:16:48 AM

Shop Packet Print

Page 9

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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NOTES: UNLESS OTHERWISE SPECIFIED

- 1 AFTER INSTALLATION, APPLY F/N 73 A/R TO FILL GAPS AND FILLET EDGES
2. APPLY F/N 74 TO FAYING SURFACES
- 3 AT CUSTOMERS OPTION, INSTALL F/N 77 BY MATCH DRILLING ONTO F/N 1
- 4 INSTALL FOR 647.1301, 647.1302.
- 5 INSTALL FOR 647.1304, 647.1305.
- 6 APPLICABLE WHEN EUROCOPTER P/N 145-250014.11 IS INSTALLED WITH EUROCOPTER CABLE CUTTER FIXED PROVISIONS.
- 7 APPLICABLE WHEN REPLACING EUROCOPTER P/N 145-250074.11
- 8 INSTALL WITH:
647.1304
647.1305
647.1307
647.1308

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 135311

JAN 12 2017

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
1	LAST PRODUCTION REVISION: P12		
N/C	INITIAL RELEASE	08/05/09	P. BRAYO
A	INCORPORATED ECH 0343 03020 03048	01/25/11	P. BRAYO
B	INCORPORATED ECH 03919	07/05/13	P. BRAYO
C	INCORPORATED ECH 04059	08/13/13	P. BRAYO
D	INCORPORATED ECH 04485, 045921 & 04774	06/17/15	P. BRAYO

1		1	1		1	1		1	14	647.1817	SUPPORT, RH		
1		1	1		1	1		1	13	647.1912	BRACKET, LH		
1		1	1		1	1		1	12	647.1911	BRACKET, RH		
	8	8		8	8			8	8	11	647.0112	STRUT BRACKET	
								1	1	10	647.2110	LOWER RAIL	
								1	1	9	647.2111	UPPER RAIL	
	1	1		1	1			1	1	8	647.1610	WIPER DEFLECTOR, FWD	
	1	1		1	1			1	1	7	647.1601	WIPER DEFLECTOR ASSY, AFT	
								2	2	6	647.1701	SKID DEFLECTOR ASSY	
1		1	1		1	1		1	5	647.3201	GROUNDING CABLE ASSY		
1		1	1		1	1		1	4	647.2201	CROSS ASSY		
1		1	1		1	1		1	3	647.1602	DOUBLER ASSY		
	1	1		1	1			1	1	2	647.1402	CUTTER ASSY (LOWER)	
								1	1	1	647.1401	CUTTER ASSY (UPPER)	
X											647.1309	EC145 T2 FIXED PROVISIONS KIT	
	X										647.1308	EC145 T2 REMOVABLE PROVISIONS KIT	
		X									647.1307	EC145 T2 CABLE CUTTERS KIT	
			X								647.1306	FIXED PROVISIONS KIT U CHANNEL	
				X							647.1305	REMOVABLE PROVISIONS KIT U CHANNEL	
					X						647.1304	EC145 CABLE CUTTERS KIT U CHANNEL COMPATIBLE	
						X					647.1303	FIXED PROVISIONS KIT	
							X				647.1302	REMOVABLE PROVISIONS KIT	
								X			647.1301	EC145 CABLE CUTTERS KIT	
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

BOM Table (Restructured)

QTY	ORIGINAL DATE 1800-24-01 07/05/09	PARTS LIST	
NEXT ASSY (S)	DRAWN BY R. ROSANO	3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5300	
	CHECKED BY D. BARKER	DART AEROSPACE	
	DRAWING APPROVAL P. BRAYO	APICAL INDUSTRIES, INC. DBS DART AEROSPACE	
	CONTRACT NO.	EC145 CABLE CUTTERS KIT	
	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS .000 3 PLACE DECIMALS .000 ANGLES .5°	SIZE B	CAGE CODE 07M26
		DWG. NO. 647.1300	REV. D
		SCALE NONE	SHEET 1 OF 10

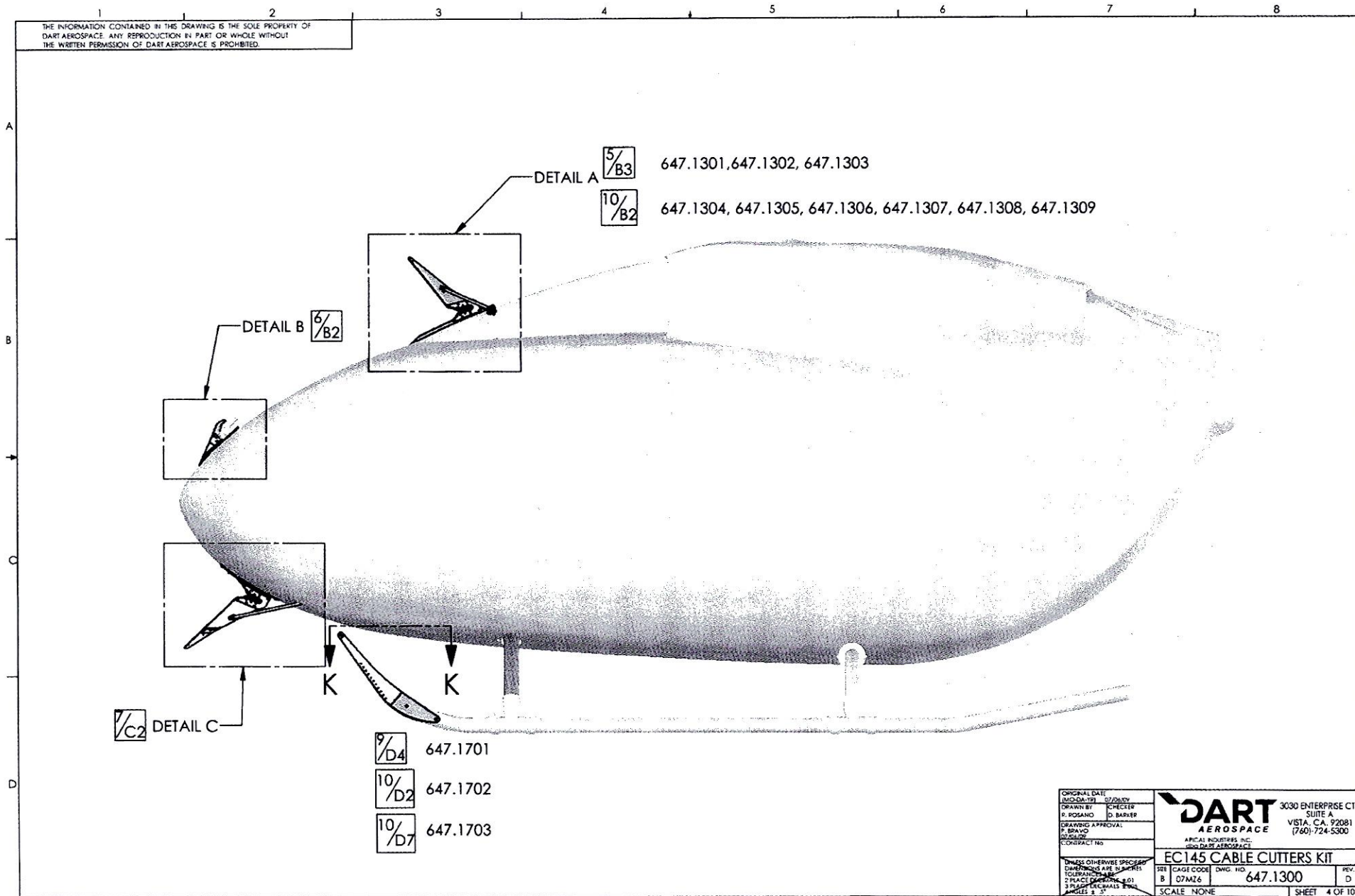
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THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.

	4	4		4	4		4	4	51	601.3209	LOCKNUT	MS21042L4	
1	4	5	1	4	5	1	8	9	50	601.2973	LOCKNUT	MS21042-08	
27	19	46	27	19	46	27	18	45	49	601.2943	LOCKNUT	MS21042-3	
	3	3		3	3		3	3	48	601.2375	WASHER		
2	8	10	2	8	10	2	16	18	47	601.2764	WASHER	NAS1149FN832P	
62	42	104	62	42	104	62	40	102	46	601.1607	WASHER	NAS1149F0332P	
1		1	1		1	1			45	601.2525	SCREW	MS27039-0807	
4		4	4		4	4			44	601.1952	SCREW	MS27039-1-20	
							4	4	43	601.3010	SCREW	MS27039-0810	
	4	4		4	4		4	4	42	601.3224	SCREW	AN525-10R12	
6		6	6		6	6		6	41	601.1365	SCREW	MS27039-1-10	
3		3	3		3	3		3	40	601.2198	SCREW	MS27039-1-07	
	3	3		3	3		3	3	39	601.2999	SCREW		
18		18	18		18	18		18	38	601.2459	SCREW	MS27039C1-06	
	4	4		4	4		4	4	37	601.1622	SCREW	MS27039-1-14	
10		10	10		10	10		10	36	601.2051	SCREW	MS24694C52	
2		2	2		2	2		2	35	601.2823	BOLT	AN3-4A	
1		1	1		1	1		1	34	601.1324	BOLT	AN4CH6A	
	2	2		2	2		2	2	33	601.1874	BOLT	AN3C10A	
	12	12		12	12		16	16	32	601.2826	BOLT	AN3-11A	
	8	8		8	8		8	8	31	601.2638	WASHER	NAS1149F0432P	
	4	4		4	4		4	4	30	601.3002	BOLT	NAS6604-66	
2		2	2		2	2		2	29	647.1811	SPACER		
4		4	4		4	4		4	28	647.2511	NUT		
4		4	4		4	4		4	27	647.2510	SLEEVE		
13		13	13		13	13		13	26	647.1812	SHIM		
4		4	4		4	4		4	25	647.1910	CLIP		
1		1	1		1	1		1	24	647.1810	NOSE DOOR DOUBLER		
1		1	1		1	1		1	23	647.1818	NOSE DOOR SPACER		
2		2	2		2	2		2	22	647.1813	ANGLE		
1		1	1		1	1		1	21	647.1913	TEE		
1		1	1		1	1		1	20	647.1814	GUSSET, LH		
1		1	1		1	1		1	19	647.1815	GUSSET, RH		
1		1	1		1	1		1	18	647.1915	SUPPORT ANGLE		
	2	2		2	2		2	2	17	647.2011	LOWER STRUT		
1		1	1		1	1		1	16	647.1914	BRACKET		
1		1	1		1	1		1	15	647.1816	SUPPORT, LH		
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

BOM Table(Resructured)

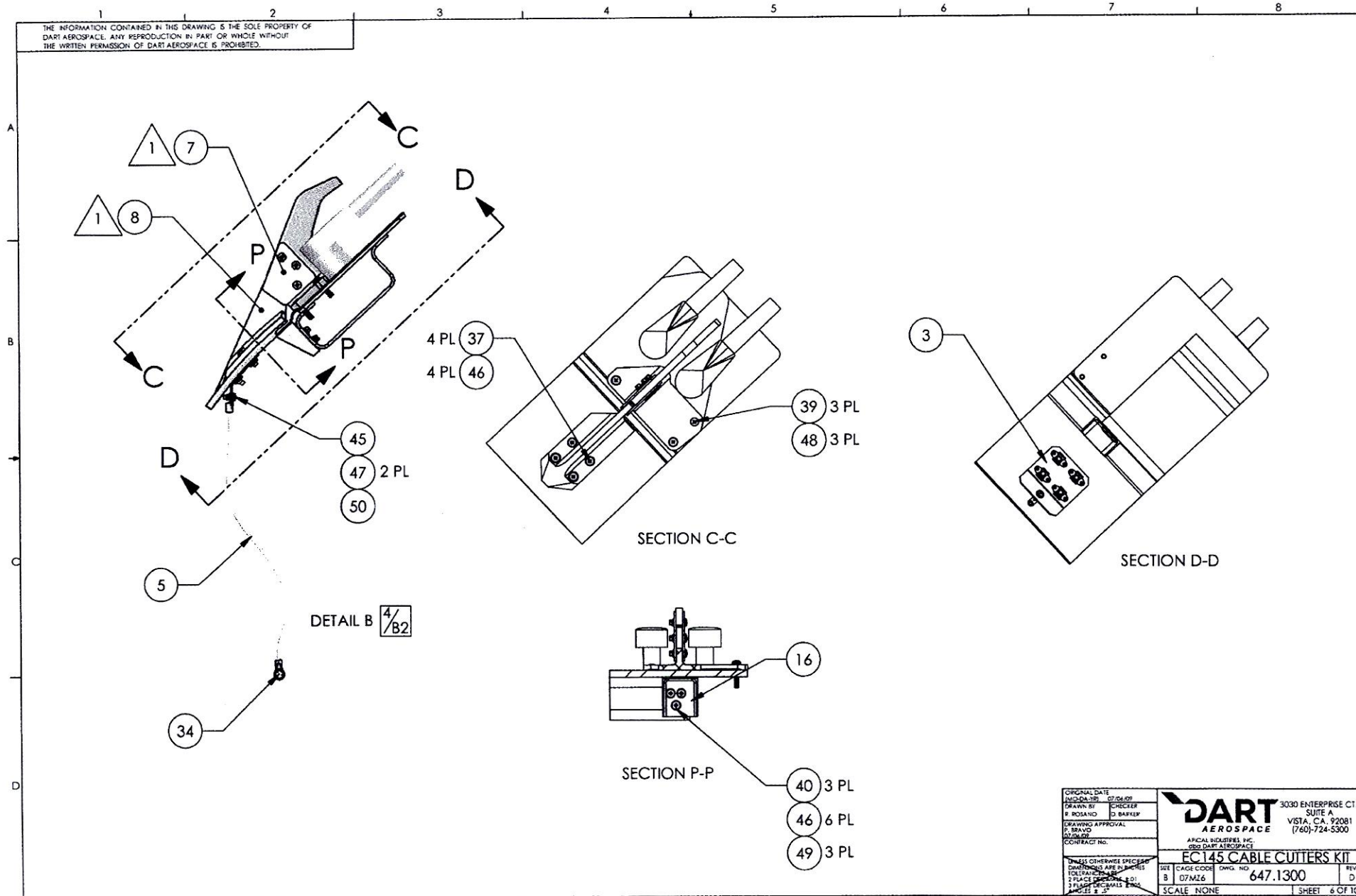
ORIGINAL DATE 07/06/09	 3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300		
DRAWN BY R. ROSANO			
CHECKED BY D. BARKER			
DRAWING APPROVAL P. BRAVO-GRASSO			
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACES DECIMALS ±.005 2 PLACES DECIMALS ±.010 ANGLES ± .5°			
SIZE B	CAGE CODE 07N426	DWG. NO. 647.1300	REV. D
SCALE NONE		SHEET 2 OF 10	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF
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ORIGINAL DATE (MM-DD-YY) 07/26/09 DRAWN BY P. ROMANO DRAWING APPROVAL P. BRAVO 02/02/09 CONTACT No		3030 ENTERPRISE CT SUITE A VISTA, CA 92081 (760)-724-5300
TOLERANCE SPECIFICATIONS DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACES DECIMALS ±.01 3 PLACES DECIMALS ±.001	EC145 CABLE CUTTERS KIT SEE B SCALE NONE DWG NO 647.1300 REV. D	
	SHEET 5 OF 10	

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THE WRITTEN PERMISSION OF DART AEROSPACE IS PROHIBITED.



ORIGINAL DATE 12/04/2010		BY: J. ROSS		3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY P. ROSANO		CHECKED BY D. BARBER		DART AEROSPACE	
DRAWING APPROVAL P. ROSANO		CONTRACT NO.		AFICAL INDUSTRIES, INC. DBO DART AEROSPACE	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.001 ANGLES ±.25°		SEE CAGE CODE B 07M26		DWG. NO. 647.1300	
SCALE NONE		SHEET 6 OF 10		REV. D	

SECTION E-E

SECTION F-F

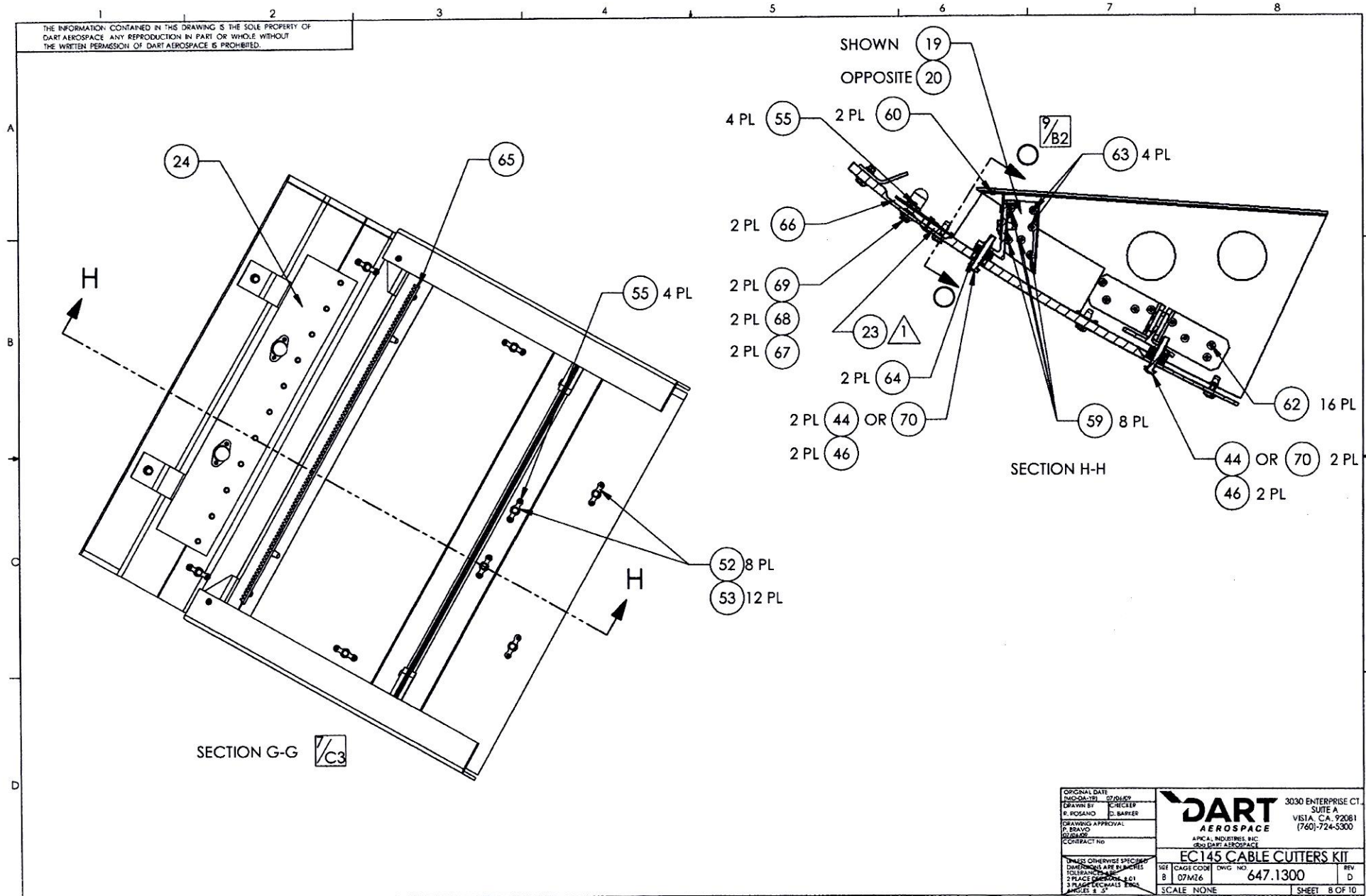
DETAIL C

EC145 CABLE CUTTERS KIT

ORIGINAL DATE BMO-DA-901 07/06/09	DRAWN BY R. ROMANO D BARBER	CHECKED BY D. BARBER	DATE 07/06/09
DRAWING APPROVAL P. BRAYO		CONTRACT NO.	
3. UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. TOLERANCES: FRACTIONS DECIMALS 2 PLACES 3 PLACES 4 PLACES .0005 .0008 .0010 .0015 .0020 .0025 .0030 .0035 .0040 .0045 .0050 .0055 .0060 .0065 .0070 .0075 .0080 .0085 .0090 .0095 .0100 .0105 .0110 .0115 .0120 .0125 .0130 .0135 .0140 .0145 .0150 .0155 .0160 .0165 .0170 .0175 .0180 .0185 .0190 .0195 .0200 .0205 .0210 .0215 .0220 .0225 .0230 .0235 .0240 .0245 .0250 .0255 .0260 .0265 .0270 .0275 .0280 .0285 .0290 .0295 .0300 .0305 .0310 .0315 .0320 .0325 .0330 .0335 .0340 .0345 .0350 .0355 .0360 .0365 .0370 .0375 .0380 .0385 .0390 .0395 .0400 .0405 .0410 .0415 .0420 .0425 .0430 .0435 .0440 .0445 .0450 .0455 .0460 .0465 .0470 .0475 .0480 .0485 .0490 .0495 .0500 .0505 .0510 .0515 .0520 .0525 .0530 .0535 .0540 .0545 .0550 .0555 .0560 .0565 .0570 .0575 .0580 .0585 .0590 .0595 .0600 .0605 .0610 .0615 .0620 .0625 .0630 .0635 .0640 .0645 .0650 .0655 .0660 .0665 .0670 .0675 .0680 .0685 .0690 .0695 .0700 .0705 .0710 .0715 .0720 .0725 .0730 .0735 .0740 .0745 .0750 .0755 .0760 .0765 .0770 .0775 .0780 .0785 .0790 .0795 .0800 .0805 .0810 .0815 .0820 .0825 .0830 .0835 .0840 .0845 .0850 .0855 .0860 .0865 .0870 .0875 .0880 .0885 .0890 .0895 .0900 .0905 .0910 .0915 .0920 .0925 .0930 .0935 .0940 .0945 .0950 .0955 .0960 .0965 .0970 .0975 .0980 .0985 .0990 .0995 .1000 .1005 .1010 .1015 .1020 .1025 .1030 .1035 .1040 .1045 .1050 .1055 .1060 .1065 .1070 .1075 .1080 .1085 .1090 .1095 .1100 .1105 .1110 .1115 .1120 .1125 .1130 .1135 .1140 .1145 .1150 .1155 .1160 .1165 .1170 .1175 .1180 .1185 .1190 .1195 .1200 .1205 .1210 .1215 .1220 .1225 .1230 .1235 .1240 .1245 .1250 .1255 .1260 .1265 .1270 .1275 .1280 .1285 .1290 .1295 .1300 .1305 .1310 .1315 .1320 .1325 .1330 .1335 .1340 .1345 .1350 .1355 .1360 .1365 .1370 .1375 .1380 .1385 .1390 .1395 .1400 .1405 .1410 .1415 .1420 .1425 .1430 .1435 .1440 .1445 .1450 .1455 .1460 .1465 .1470 .1475 .1480 .1485 .1490 .1495 .1500 .1505 .1510 .1515 .1520 .1525 .1530 .1535 .1540 .1545 .1550 .1555 .1560 .1565 .1570 .1575 .1580 .1585 .1590 .1595 .1600 .1605 .1610 .1615 .1620 .1625 .1630 .1635 .1640 .1645 .1650 .1655 .1660 .1665 .1670 .1675 .1680 .1685 .1690 .1695 .1700 .1705 .1710 .1715 .1720 .1725 .1730 .1735 .1740 .1745 .1750 .1755 .1760 .1765 .1770 .1775 .1780 .1785 .1790 .1795 .1800 .1805 .1810 .1815 .1820 .1825 .1830 .1835 .1840 .1845 .1850 .1855 .1860 .1865 .1870 .1875 .1880 .1885 .1890 .1895 .1900 .1905 .1910 .1915 .1920 .1925 .1930 .1935 .1940 .1945 .1950 .1955 .1960 .1965 .1970 .1975 .1980 .1985 .1990 .1995 .2000 .2005 .2010 .2015 .2020 .2025 .2030 .2035 .2040 .2045 .2050 .2055 .2060 .2065 .2070 .2075 .2080 .2085 .2090 .2095 .2100 .2105 .2110 .2115 .2120 .2125 .2130 .2135 .2140 .2145 .2150 .2155 .2160 .2165 .2170 .2175 .2180 .2185 .2190 .2195 .2200 .2205 .2210 .2215 .2220 .2225 .2230 .2235 .2240 .2245 .2250 .2255 .2260 .2265 .2270 .2275 .2280 .2285 .2290 .2295 .2300 .2305 .2310 .2315 .2320 .2325 .2330 .2335 .2340 .2345 .2350 .2355 .2360 .2365 .2370 .2375 .2380 .2385 .2390 .2395 .2400 .2405 .2410 .2415 .2420 .2425 .2430 .2435 .2440 .2445 .2450 .2455 .2460 .2465 .2470 .2475 .2480 .2485 .2490 .2495 .2500 .2505 .2510 .2515 .2520 .2525 .2530 .2535 .2540 .2545 .2550 .2555 .2560 .2565 .2570 .2575 .2580 .2585 .2590 .2595 .2600 .2605 .2610 .2615 .2620 .2625 .2630 .2635 .2640 .2645 .2650 .2655 .2660 .2665 .2670 .2675 .2680 .2685 .2690 .2695 .2700 .2705 .2710 .2715 .2720 .2725 .2730 .2735 .2740 .2745 .2750 .2755 .2760 .2765 .2770 .2775 .2780 .2785 .2790 .2795 .2800 .2805 .2810 .2815 .2820 .2825 .2830 .2835 .2840 .2845 .2850 .2855 .2860 .2865 .2870 .2875 .2880 .2885 .2890 .2895 .2900 .2905 .2910 .2915 .2920 .2925 .2930 .2935 .2940 .2945 .2950 .2955 .2960 .2965 .2970 .2975 .2980 .2985 .2990 .2995 .3000 .3005 .3010 .3015 .3020 .3025 .3030 .3035 .3040 .3045 .3050 .3055 .3060 .3065 .3070 .3075 .3080 .3085 .3090 .3095 .3100 .3105 .3110 .3115 .3120 .3125 .3130 .3135 .3140 .3145 .3150 .3155 .3160 .3165 .3170 .3175 .3180 .3185 .3190 .3195 .3200 .3205 .3210 .3215 .3220 .3225 .3230 .3235 .3240 .3245 .3250 .3255 .3260 .3265 .3270 .3275 .3280 .3285 .3290 .3295 .3300 .3305 .3310 .3315 .3320 .3325 .3330 .3335 .3340 .3345 .3350 .3355 .3360 .3365 .3370 .3375 .3380 .3385 .3390 .3395 .3400 .3405 .3410 .3415 .3420 .3425 .3430 .3435 .3440 .3445 .3450 .3455 .3460 .3465 .3470 .3475 .3480 .3485 .3490 .3495 .3500 .3505 .3510 .3515 .3520 .3525 .3530 .3535 .3540 .3545 .3550 .3555 .3560 .3565 .3570 .3575 .3580 .3585 .3590 .3595 .3600 .3605 .3610 .3615 .3620 .3625 .3630 .3635 .3640 .3645 .3650 .3655 .3660 .3665 .3670 .3675 .3680 .3685 .3690 .3695 .3700 .3705 .3710 .3715 .3720 .3725 .3730 .3735 .3740 .3745 .3750 .3755 .3760 .3765 .3770 .3775 .3780 .3785 .3790 .3795 .3800 .3805 .3810 .3815 .3820 .3825 .383			

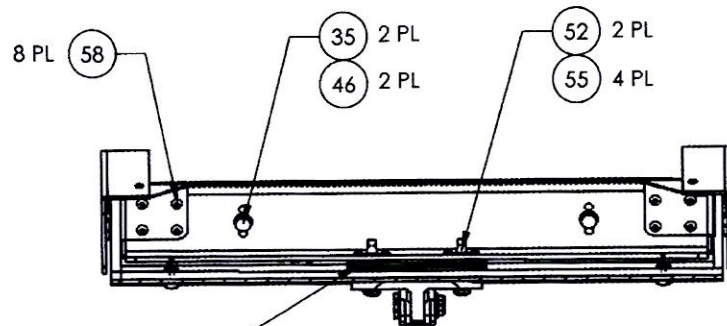
ORIGINAL DATE REV/DWG NO. 07/06/00	 3030 ENTERPRISE DRIVE SUITE A VISTA, CA 92083 (760)-724-5300 AFICAL INDUSTRIES INC. 800-742-4422	EC145 CABLE CUTTERS KIT	
DRAWN BY: CRICKLER		REV. 0	
CHECKED BY: H. JOHNSON		DATE: 07/06/00	
DESIGNING APPROVAL: P. BRADY		SCALE: 1/2" = 1'	
CONTRACT NO:		SHEET 7 OF 11	

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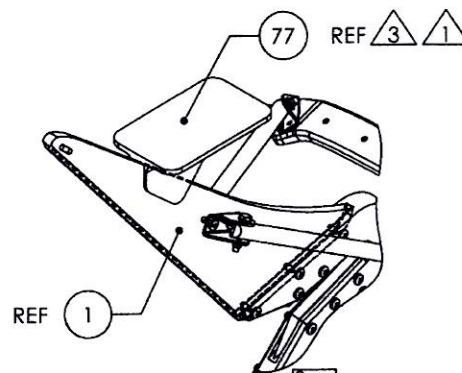
ORIGINAL DATE 11/01/01		DRAWN BY R. ROSANO		CHECKED BY D. BARBER		APPROVED BY P. BRADY		DATE 01/01/02		CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DIMENSIONS ±.01 3 PLACE DIMENSIONS ±.005 ANGLES ±.5°		DART AEROSPACE		3030 ENTERPRISE CT. SUITE A VISIA, CA. 92081 (760)-724-5300		APICAL INDUSTRIES, INC. DBA DART AEROSPACE		EC145 CABLE CUTTERS KIT		REV D	
SCALE NONE		SHEET 8 OF 10		CAGE CODE 07M26		DWG NO. 647.1300					

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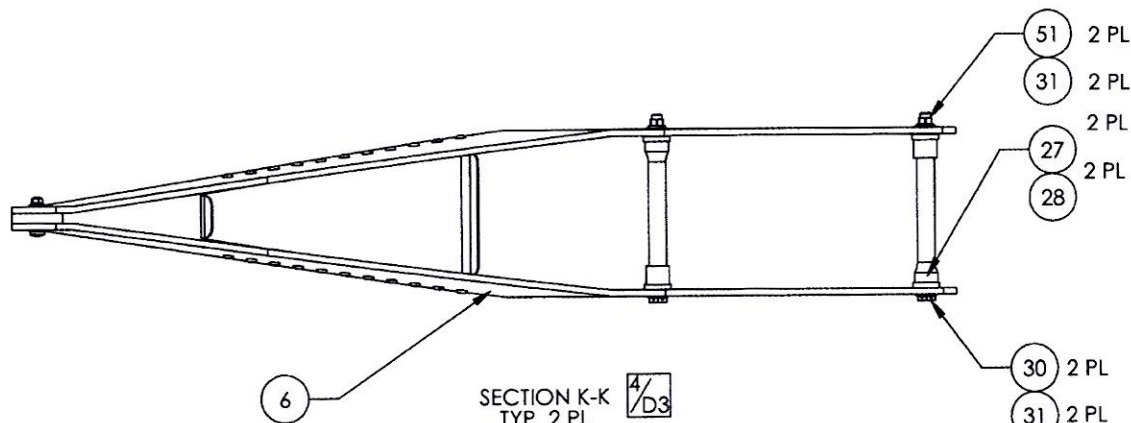


A/R (26)
A/R (71)
A/R (72)

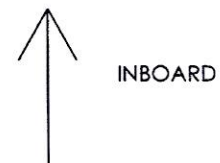
SECTION O-O $\frac{8}{A6}$



DETAIL D $\frac{8}{A6}$
SHOWN ISOMETRICALLY
TYPICAL GPS MOUNT KIT INSTALLATION

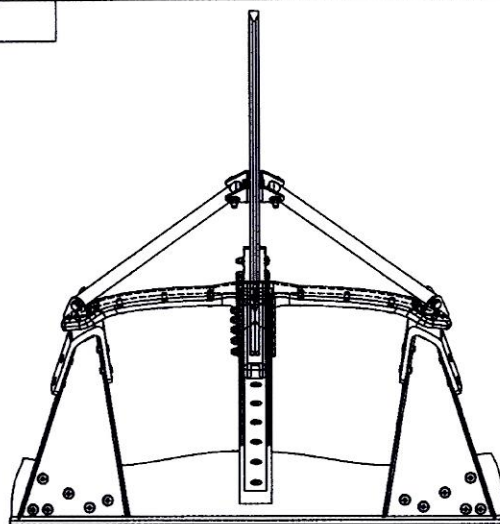


SECTION K-K $\frac{4}{D3}$
TYP. 2 PL
FOR KIT 647.1301

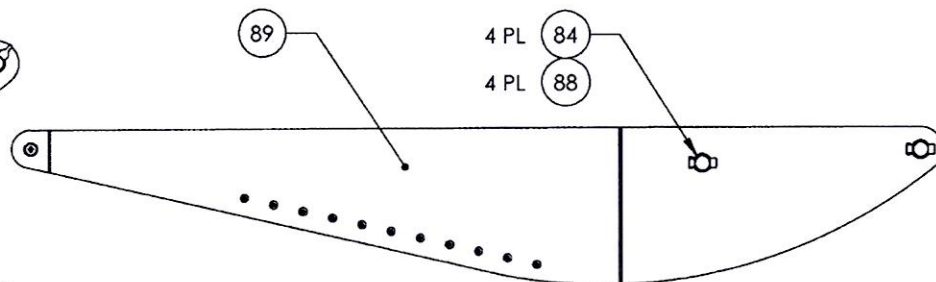
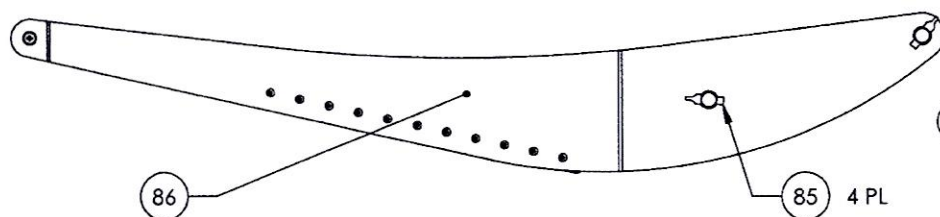
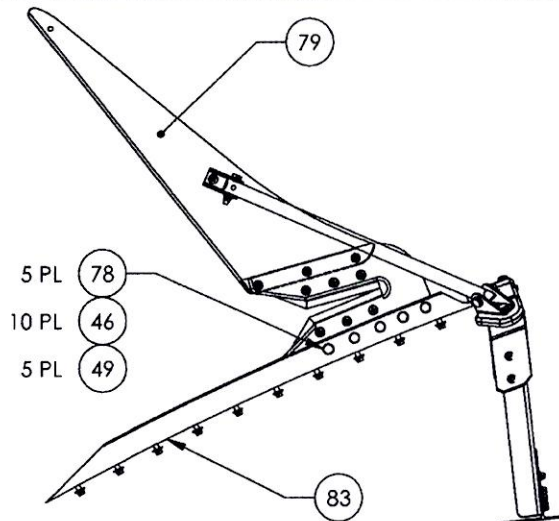


ORIGINAL DATE 1/10/01-101		DRAWN BY R. ROSANO		CHECKER D. BARBER	
DRAWING APPROVAL P. BRADY		CONTRACT NO.		DART AEROSPACE	
TOLERANCES UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES FRACTIONS ARE 1/16, 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8 DECIMALS ARE .001, .002, .003, .004, .005, .006, .007, .008, .009, .010, .015, .020, .030, .040, .050, .060, .070, .080, .090, .100, .125, .150, .175, .200, .250, .300, .375, .400, .500, .625, .750, .875, 1.000 ANGLES ARE 1°, 2°, 3°, 4°, 5°, 6°, 8°, 10°, 12°, 15°, 20°, 25°, 30°, 35°, 40°, 45°, 50°, 55°, 60°, 65°, 70°, 75°, 80°, 85°, 90°, 100°, 110°, 120°, 135°, 150°, 165°, 180°		DART AEROSPACE		3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760) 724-5300	
EC145 CABLE CUTTERS KIT		SHEET 9 OF 10		SCALE NONE	
SIZE 8		PAGE CODE 07M26		DWG. NO. 647.1300	
REV. D		REV. D		REV. D	

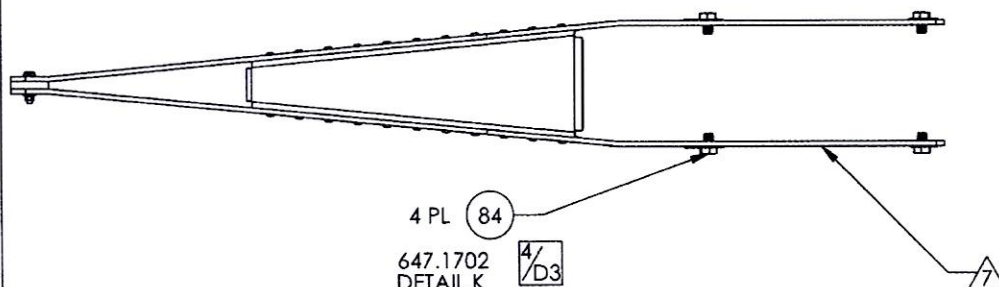
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DETAIL A
WITH U CHANNEL $\frac{4}{B3}$



647.1703
DETAIL K
T2 CONFIGURATION



647.1702
DETAIL K
ALTERNATE CONFIGURATION
FOR P/N 647.1303 $\frac{4}{D3}$

ORIGINAL DATE 10/04/00		DESIGNED BY D. BARKER		3030 ENTERPRISE CT., SUITE A VISTA, CA, 92081 (760)-724-5300	
DRAWN BY R. BOSANO		CHECKED BY D. BARKER		DART AEROSPACE APICAL INDUSTRIES INC. 1800 JARVIS AVE.	
DRAWING APPROVAL P. BEAL		CONTRACT NO.		EC145 CABLE CUTTERS KIT	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .005 ANGLES ± .5°		REV. B	CAGE CODE 071A26	DWG. NO. 647.1300	REV. D
SCALE NONE		SHEET 10 OF 10			

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1 AFTER INSTALLATION, APPLY F/N 73 A/R TO FILL GAPS AND FILLET EDGES

3 AT CUSTOMERS OPTION, INSTALL F/N 77
BY MATCH DRILLING ONTO F/N 1

4 INSTALL FOR 647.1301, 647.1302.

5 INSTALL FOR 647.1304, 647.1305.

6 APPLICABLE WHEN EUROCOPTER P/N 145-250014.11 IS INSTALLED WITH EUROCOPTER CABLE CUTTER FIXED PROVISIONS.

 APPLICABLE WHEN REPLACING EUROCOPTER
P/N 145-250074.11

 **INSTALL WITH:**
647.1304
647.1305
647.1307
647.1308

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	LAST PROTOTYPE REVISION: P12		N/C
N/C	INITIAL RELEASE	08/05/09	P. BRAVO
A	INCORPORATED ECH 02943, 03070, 03048	01/25/11	P. BRAVO
B	INCORPORATED ECH 02919	07/05/13	P. BRAVO
C	INCORPORATED ECH 04059	08/12/13	P. BRAVO
D	INCORPORATED ECH 04185, 04521 & 04976	04/17/15	P. BRAVO

1		1	1			1	1		1	14	647.1817	SUPPORT, RH		
1		1	1			1	1		1	13	647.1912	BRACKET, LH		
1		1	1			1	1		1	12	647.1911	BRACKET, RH		
	8	8	8		8			8	8	11	647.0112	STRUT BRACKET		
								1	1	10	647.2110	LOWER RAIL		
							1		1	9	647.2111	UPPER RAIL		
	1	1	1		1			1	1	8	647.1610	WIPER DEFLECTOR, FWD		
	1	1	1		1			1	1	7	647.1601	WIPER DEFLECTOR ASSY, AFT		
								2	2	6	647.1701	SKID DEFLECTOR ASSY		
1		1	1		1	1			1	5	647.3201	GROUNDING CABLE ASSY		
1		1	1		1	1			1	4	647.2201	CROSS ASSY		
1		1	1		1	1			1	3	647.1602	DOUBLER ASSY		
	1	1	1		1			1	1	2	647.1402	CUTTER ASSY (LOWER)		
								1	1	1	647.1401	CUTTER ASSY (UPPER)		
X											647.1309	ECT45 T2 FIXED PROVISIONS KIT		
	X										647.1308	ECT45 T2 REMOVABLE PROVISIONS KIT		
		X									647.1307	ECT45T2 CABLE CUTTERS KIT		
			X								647.1306	FIXED PROVISIONS KIT U CHANNEL		
				X							647.1305	REMOVABLE PROVISIONS KIT U CHANNEL		
					X						647.1304	ECT45 CABLE CUTTERS KIT U CHANNEL COMPATIBLE		
						X					647.1303	FIXED PROVISIONS KIT		
							X				647.1302	REMOVABLE PROVISIONS KIT		
								X			647.1301	ECT145 CABLE CUTTERS KIT		
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.	

BOM Table(Restructured)

[illegible]

REFERENCE ONLY

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1309	1308	1307	1306	1305	1304	1303	1302	1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.
12	12	12	12	12	12	12	12	12	52	600.0795	NUT/PLATE	MS21047-3	
12	12	12	12	12	12	12	12	12	53	601.2980	NUT/PLATE RIVET	CCR26455-3-04	
4	4	4	4	4	4	4	4	4	54	601.1983	NUT/PLATE RIVET	CCR27455-3-03	
12	12	12	12	12	12	12	12	12	55	601.2207	NUT/PLATE RIVET	CCR26455-3-03	
4	4	4	4	4	4	4	4	4	56	601.1915	RIVET	CR3213-4-4	
8	8	8	8	8	8	8	8	8	57	601.2995	RIVET	CR3213-4-6	
22	22	22	22	22	22	22	22	22	58	601.0790	RIVET	CR3213-4-3	
8	8	8	8	8	8	8	8	8	59	601.1183	RIVET	CR3213-4-5	
2	2	2	2	2	2	2	2	2	60	601.1039	RIVET	CR3213-4-2	
11	11	11	11	11	11	11	11	11	61	601.2991	RIVET	CR3213-4-6	
16	16	16	16	16	16	16	16	16	62	601.2468	RIVET	CR3213-4-7	
12	12	12	12	12	12	12	12	12	63	601.2364	RIVET	CR3213-4-8	
2	2	2	2	2	2	2	2	2	64	601.3008	INSERT	MA51834C3-300	
1.1 FT.	1.1 FT.	1.1 FT.	1.1 FT.	1.1 FT.	1.1 FT.	1.1 FT.	1.1 FT.	1.1 FT.	65	601.3007	GROMMET	MS21266-2N	
3 FT.	3 FT.	3 FT.	3 FT.	3 FT.	3 FT.	3 FT.	3 FT.	3 FT.	66	601.3011	P-SEAL		
2	2	2	2	2	2	2	2	2	67	601.3006	CAM/LOC RECEPTACLE		
2	2	2	2	2	2	2	2	2	68	601.3005	CAM/LOC RETAINER		
2	2	2	2	2	2	2	2	2	69	601.3004	CAM/LOC STUD		
4	4	4	4	4	4	4	4	4	70	601.3012	SCREW	MS27039-1-15	
1	1	1	1	1	1	1	1	1	71	600.0990	WASHER		
1	1	1	1	1	1	1	1	1	72	600.0991	WASHER		
1	1	1	1	1	1	1	1	1	73	600.1012	SEALANT	PR-1425 CLASS B	
1	1	1	1	1	1	1	1	1	74	601.2045	RTV	LOCTITE 598	
2	2	2	2	2	2	2	2	2	75	647.2010	UPPER STRUT		
2	2	2	2	2	2	2	2	2	76	601.1954	SCREW	MS27039-1-17	
REF	REF	REF	REF	REF	REF	REF	REF	REF	77	647.5701	GPS MOUNT KIT		
5	5	5	5	5	5	5	5	5	78	601.3650	BOLT	AN3-15A	
1	1	1	1	1	1	1	1	1	79	647.1403	CUTTER ASSY (UPPER U CHANNEL)		
4	4	4	4	4	4	4	4	4	80	601.3651	SCREW	91292A080	
4	4	4	4	4	4	4	4	4	81	601.3652	LOCKNUT	93425A300	
8	8	8	8	8	8	8	8	8	82	601.3653	WASHER	93475A270	
1	1	1	1	1	1	1	1	1	83	647.2112	UPPER U CHANNEL		
8	8	8	8	8	8	8	8	8	84	601.3654	SCREW	LN9037-08018	
8	8	8	8	8	8	8	8	8	85	601.3655	WASHER	LN9025-0820K	
1	1	1	1	1	1	1	1	1	86	647.2113	LOWER RAIL (U CHANNEL)		
2	2	2	2	2	2	2	2	2	87	647.1402	SKID DEFLECTOR ASSY		
8	8	8	8	8	8	8	8	8	88	601.3812	LOCK TAB	LN9023A8-1-4544.9	
2	2	2	2	2	2	2	2	2	89	647.1703	12 SKID DEFLECTOR ASSY		

SCALE NONE
 SHEET 3 OF 10
 647.1300
 EC145 CABLE CUTTERS KIT
 DART AEROSPACE
 3030 ENTERPRISE CT.
 SUITE A
 VISTA, CA 92081
 (760) 724-5300

REFERENCE ONLY

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	4	4		4	4		4	4	51	601.3209	LOCKNUT	MS21042L4	
1	4	5	1	4	5	1	8	9	50	601.2973	LOCKNUT	MS21042-08	
27	19	46	27	19	46	27	18	45	49	601.2943	LOCKNUT	MS21042-3	
	3	3		3	3		3	3	48	601.2375	WASHER		
2	8	10	2	8	10	2	16	18	47	601.2764	WASHER	NAS1149FN832P	
62	42	104	62	42	104	62	40	102	46	601.1607	WASHER	NAS1149F0332P	
1		1	1		1	1		1	45	601.2525	SCREW	MS27039-0807	
4		4	4		4	4		4	44	601.1952	SCREW	MS27039-1-20	
							4	4	43	601.3010	SCREW	MS27039-0810	
	4	4		4	4		4	4	42	601.3224	SCREW	AN525-10R12	
6		6	6		6	6		6	41	601.1365	SCREW	MS27039-1-10	
3		3	3		3	3		3	40	601.2198	SCREW	MS27039-1-07	
	3	3		3	3		3	3	39	601.2777	SCREW		
18		18	18		18	18		18	38	601.2459	SCREW	MS27039C1-06	
	4	4		4	4		4	4	37	601.1622	SCREW	MS27039-1-14	
10		10	10		10	10		10	36	601.2051	SCREW	MS24694C52	
2		2	2		2	2		2	35	601.2823	BOLT	AN3-4A	
1		1	1		1	1		1	34	601.1324	BOLT	AN4CH6A	
	2	2		2	2		2	2	33	601.1874	BOLT	AN3C10A	
	12	12		12	12		16	16	32	601.2826	BOLT	AN3-11A	
	8	8		8	8		8	8	31	601.2638	WASHER	NAS1149F0432P	
	4	4		4	4		4	4	30	601.3002	BOLT	NAS6604-66	
2		2	2		2	2		2	29	647.1811	SPACER		
4		4	4		4	4		4	28	647.2511	NUT		
4		4	4		4	4		4	27	647.2510	SLEEVE		
13		13	13		13	13		13	26	647.1812	SHIM		
4		4	4		4	4		4	25	647.1910	CLIP		
1		1	1		1	1		1	24	647.1810	NOSE DOOR DOUBLER		
1		1	1		1	1		1	23	647.1818	NOSE DOOR SPACER		
2		2	2		2	2		2	22	647.1813	ANGLE		
1		1	1		1	1		1	21	647.1913	TEE		
1		1	1		1	1		1	20	647.1814	GUSSET, LH		
1		1	1		1	1		1	19	647.1815	GUSSET, RH		
1		1	1		1	1		1	18	647.1915	SUPPORT ANGLE		
	2	2		2	2		2	2	17	647.2011	LOWER STRUT		
1		1	1		1	1		1	16	647.1914	BRACKET		
1		1	1		1	1		1	15	647.1816	SUPPORT, LH		
.1309	.1308	.1307	.1306	.1305	.1304	.1303	.1302	.1301	FIND #	PART #	DESCRIPTION	MATL	SPEC.

BOM Table(Restructured)

ORIGINAL DATE 07/06/09	3030 ENTERPRISE CT. SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY R. ROSANO	CHECKER D. BARBER	DART AEROSPACE APLAL BAKKIMES, INC. POLARIS AEROSPACE
DRAWING APPROVAL P. BRAVO 08/05/09	CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 3 PLACE DECIMALS ±.010 ANGLES ± .1°		EC145 CABLE CUTTERS KIT
REV B	CAGE CODE 07M26	QWC. NO. 647.1300
SCALE NONE		SHEET 2 OF 10

Work Order ID 155311

Friday, January 13, 2017 8:57:00 AM

155311

Page 1

Item ID: 647.1305**Accept*****N900040100*****Setup Start*****NS1*****Revision ID:****Stop*****NS2*****Item Name:** EC145 Cable Cutter System Removable Provisions U Channel Compatible**Start Date:** 1/12/2017 **Start Qty:** 1.00***1*****Cust Item ID:****Required Date:** 1/23/2017 **Req'd Qty:** 1.00***1*****Customer:****Reference:****Approvals:****Process Plan:** _____**Date:** _____**Tooling:** _____**Date:** _____**Run Start*****NR1*****QC:** _____**Date:** _____**SPC (Y/N):** _____**Date:** _____**Stop*****NR2*****Sequence ID/
Work Center ID****Operation
Description****Set Up/
Run Hours****Tool ID****Tool #****Plan
Code****Accept
Qty****Reject
Qty****Reject
Number****Insp.
Stamp****Draw Nbr****Revision Nbr**

647.1300

D

JAN 13 2017

100

Document Control

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP 647.1305

DAS
21
JAN 13 2017

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.01

Quality Control

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								